To,
The Executive Engineer
Project Division
Yelahanka Zone
Bruhat Bangalore Mahanagar Palike
Bangalore-92.

Job Code No. 005-20-000037
WORKCOST: 1000.00 Lakhs

"PMC & INSPECTION REPORT"

Dear Sir,

Subject: Regarding Inspection report for the below mentioned work

Consultancy Services for Project Management Consultancy for the work of Comprehensive Development works in ward No.03 Attur

SL.NO	Descripition of work	Unit	Qty
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloadin	Cum	4406.16
2	KSRRB 400-2. Provididng, laying, spreading and compacting specified graded, gravel or any other course materail 60% and crushed stone aggreagtes of granite/ trap/ basalt 40% in sub-base course, close grading-I including premixing the materail at OMC in mechanical mixer (Pug mill), carriage of mixed material, spreading in uniform layers with motor grader on a prepared base and compacting with power roller to achieve the desired including all materials, labour, HOM lighting, guarding, barricading and maintenace of diversion complete as per specifications. MORTH Chapter-20 Pg-153 I.No-20.2	Cum	813.37
3	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)	Sqm	10519.70
4	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)	Cum	3847.62
5	KSRRB M2100-10. Providing and laying Plain cement concrete of mix	Cum	2301.70

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	1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)		
6	Constructing un-reinforced,plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum,fine aggregates at 0.46 cum,coarse and fine aggregate conforming to IS:383-2016,with Superplastizer at 3 Its conforming to IS 9103-2008.mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design,laid in approved fixed side form work (sreel channel,layning and fixing of 125 micron thick polythene fim, wedges, steel plates including levelling the form work as per drawing). & Speration the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a construction and longitudinal joints,including groove cutting charges,joint filler,separation membrane of impermiable plastic sheet of 125 micron,sealant primer, joint sealant, admixtures as approved, curring compound, finishing to lines and grades, textured with texturing machine, and curing including cost of materials,labour,hire charges of machineries , all lead & lift charges etc., complete as per specifications.with OPC AT 320 kg/cum and fly ash 40 kg/cum conforming to IS:3812, coarse aggregate 0.69cum,fine aggregate 0.46cum. Item No.-22.6.3,Page No.-176	Cum	2259.27
7	KSRRB 800 .Providing and erecting direction and place identification retro -reflected sign as per IRC:67 made of high intensity grade sheeting ,2mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75*75*6 mm,2Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45*45*60 cm,60cm below ground level as per approved drawing.I.No-24.4 Pg No-180	Sqm	9.00
8	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floting disc including cost of generator,HOM of machinery , screed Vibratory ,power floater,blade and disc etc,with all lead and lift. Item No. 22.7 .P.No.-176	Sqm	4542.42
9	KSRRB 200-13. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2 (P-138 , I.no 18.13).	Ha	1.56
10	KSRRB M300-53. Construction of embankment with approved materials Gravel/Murrum with all lift and leads, transportation to site,Spreading, grading to required slope and compacting to meet requirement of Table 300-2 complete asper specifications. Which includes cost of Gravel/Murrum , watering charges & compaction by vibratory roller to 95% of modified proctors density) MORTH Specification No.305 , Item No.19.60 ,Page No. - 147	Cum	5295.09

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11	KSRRB M600-3-Providing and Constructing dry lean concrete mix CC 1:4:8 base with OPC @180kgs ,25mm and down size graded granite metal coarse aggregate at 0.85 cum and fine aggregates @0.57 cum over a prepared sub-base ,coarse and fine aggregate confirming to IS:383-2016,aggregate cement ratio not to eceed 15:1,Aggregate content to be be less than 10Mpa at 7 days , mixed in a batching plant,transported to site ,laid with a paver,compacting with 8-10 tonnes vibratory rolle,finishing and curing complete as per specifications. Clause 601 of MORTH V Revision and IS 456 Table -5, Item No.-22.3,Page No.-175	Cum	3172.65
12	KSRB 14.6: Providing and laying heavy duty cobble stones interlock pavers,using cement and course sand for manufacture of blocks of approved size , shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints,final compaction of paver surface joints into its final levevl,including cost of materials,labour and HOM complete as per specifications. Specification No. KBS ,14.6 KSRB 14.6-1 heavy duty cobble stones 60 mm thick in place of 75mm thick (rate reduced)	Sqm	21534.53
E1	Removing and Refixing stone slabs of drains and pointing in C.M(1:3) with all lead and lift and as per the directioon of Engineer in -charge	Sqm	698.04
E2	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)	Cum	634.48
E3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	Sqm	47.58
E4	KSRRB M 2200-6 Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Sqm	3.36
E5	Providing granite slabs of selected quality roughly dressed having a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete with all lead and lift and as per the direction of Engineer in-charge.	Sqm	465.30

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E6	KSRB 5.2-3: Providing and constructing granite / trap / baslt size stone masonary in foundation with cement mortar , stone hammered dressed in course not less than 20 cms high, bond stones at 2m. Apart in each course including cost materials , labours , curing complete as per specifications. KBS-5.1.13 , cement mortar 1:6 KBS-5.1.13 (P.No-25, I.No-5.6).	Cum	108.00
E7	KSRB 4-1.6: Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC at 240kgs, with 20mm and down size granite metal coarse aggregates at 0.878 cum and fine aggregates at 0.53cum , mechine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted in foundation , plinth and cills, including cost of materials, labours, HOM curing complete as per specifications.specifications No. KBS 4.1,4.2.(P.No-13, I.No4.6)	Cum	87.57
E8	KSRB 5-14: providing and constructing load bearing wall with solid concrete blocks of size 400mm*150mm*200mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00N/mm2 confirming to IS 2185(part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of materials , labour charges , scaffolding, curing, complete as per specifications. KBS No.5.4 I.No.5.26.2, page no27	Sqm	517.60
E9	Providing and Fixing RCC pre cast covering Slab of 100mm thick for drains in cement concrete M25 using graded granite jelly 20mm and down size with steel reinforecement , inclunding form work, lift charges, curing and concrete finishined surfaces on both side etc., complete as per drawing and the directions of Engineer in-charge.(Date rate)	Sqm	866.40
E10	Providing and Fixing pre cast covering Slab 250mm thick made out of M25 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of all materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm	209.94
E11	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.	No's	2017.00
E12	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8	Sqm	363.08

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E13	KSRRB M600-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base-base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. with all lead and lift and as per direction of Engineer In-charge	Sqm	930.69
E14	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spurying primer at the rte of 0.60 kg /sqm using mechanical means complete as per specifications with all lead and lift and as per the direction of Engineer in-charge	Sqm	4175.95
E15	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of materials , labour, HOM complete as per specification with all lead and lift and as per the direction of Engineer in-charge.	Sqm	4175.95
E16	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with mechanical paver Gr-II (50mm to 70mm) with 4.5% VG-30 bitumen with all lead and lift and as per the direction of Engineer in-charge.	Sqm	208.80
E17	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP- 53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade} and 0.43% of plastomeric thermoplastics (waste plastic) with all lead and lift and as per the direction of Engineer in-charge.	Sqm	167.04
E18	KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications with all lead and lift and as per the direction of Engineer in-charge	Sqm	192.13

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E19	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 page no 6 item no 2.3	Cum	30.36
E20	Fabricating providing and erecting in position of MS Hot Dip galvanized sq hallow poles of 132 x132 heavy gauge length 3000mm with MS Hot Dip galvanized grill work as per approved design and drawing of chief architect using 12 x75mm galvanized flat for alround frame and 20 x 20mm galvanized forged ornamental arrow head in top and buttom the work is inclusive of throughing flat square rods placing welding all the joints including griding finishing 2 coats of anticorrossive paint over one coat of metal primer the rate is inclusive of all materials all items of work cost painting welding cutting griding with lead and lift as per specifications including loading and unloading with cost and conveyance of all materials labour machinery and incidental charges for the successful completion of the work as per direction of engineer in charge of work	Sqm	156.00
E21	Fabricating, providing and erecting in position Hot dip galvanized Gate. Using 72x72x4.8 mm Sq. G I Pipe Frame with top pipe bending in heavy duty hydraulic press with sand packing and hot bending to form double arch as per drawing profile, 20mm hot dip galvanized sq.rod for verticals at 150mm c/c , as shown in the drawing including providing hot do galvanized forged ornamental design in between rods and heads at top, middle and bottom. Intermediate supports of 75x12mm and 50x6mm arch bent to hot dip galvanized flats.The work is inclusive of throughing GI, Flat GI Sqm. rods, placing, welding all the joints including grinding, finishing metal patty, painting two coats enamel painting. The rate is inclusive of all materials Like GI Sq. GI Pipe, GI Forged designs etc., heavy duty hinges are made out of 75mm sold sq. block assembled with 20mm du bearing in three places for each flop. Heavy duty locking arrangement of low places including cost of labour, painting, erection charges using hoist pulley cranes, with all lead and lift, loading, trasportation, unloading, scaffolding charges and all other.	Sqm	8.00

With respect to the above subject and name of the work, we have inspected and verified the measurement and quantity of the materials of the work was found to be completed satisfactorily for the 2nd and part bill
Thanking you,

For AARTN ASSOCIATES

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